

Rainier Avenue S Bus Lanes

Survey Analysis

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Presented by



Seattle
Department of
Transportation

the **Vida**
AGENCY

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Survey Overview

Introduction

The [Rainier Ave S Bus Lanes survey](#) was live for six weeks, from September 27 to November 13, 2022, with the purpose of gathering community feedback regarding the two design options, understanding people's experiences traveling on Rainier Ave S and riding the bus, and what would encourage people to take more bus trips. The survey received 1,330 responses.

The survey was translated into eleven languages, Amharic, Arabic, Chinese (Simplified), Chinese (Traditional), Japanese, Korean, Somali, Spanish, Tagalog, Tigrinya, and Vietnamese. We received 53 survey responses in languages other than English.

Survey Goals

The goal of the survey was to answer the following questions:

1. Which option do people prefer and why?
2. Who is and who is not currently taking the bus?
3. What are the barriers that people experience to taking the bus?
4. What would make people take the bus more often?

Findings Summary

Option Choice Findings

- Around 60% of people who drive prefer Option 2.
- Around 60% of people who take the bus, bike, walk/roll, or use a scooter prefer Option 1.
- People who selected Option 1 are happier with their choice, while people who selected Option 2 are "choosing the lesser of 2 evils".
- On average 30-50% of comments are not happy with either of the options provided and/or do not want a bus only lane.
 - People who walk/roll and bike are happier with the bus only lanes.
 - People who drive (those picking Option 2) are generally more upset.
- People have similar needs and motivations: safer streets and less congestion/traffic. They just see the pros and cons of each option differently.
- People who prefer Option 1 believe the center turn lane will help the flow of traffic, reduce crashes, and make it safer for people walking, rolling, and biking.
- People who selected Option 2 believe the center turn lane will just be abused and having 2 lanes will reduce frustrations and collisions.
- People who ride the bus frequently are likely to be older and/or Black, Indigenous, or a person of color (BIPOC) who commute for work and live around Rainier Ave S.
 - Possibly due to safety reasons, more respondents commute and take the bus in the mornings, but less take the bus back in the evening.

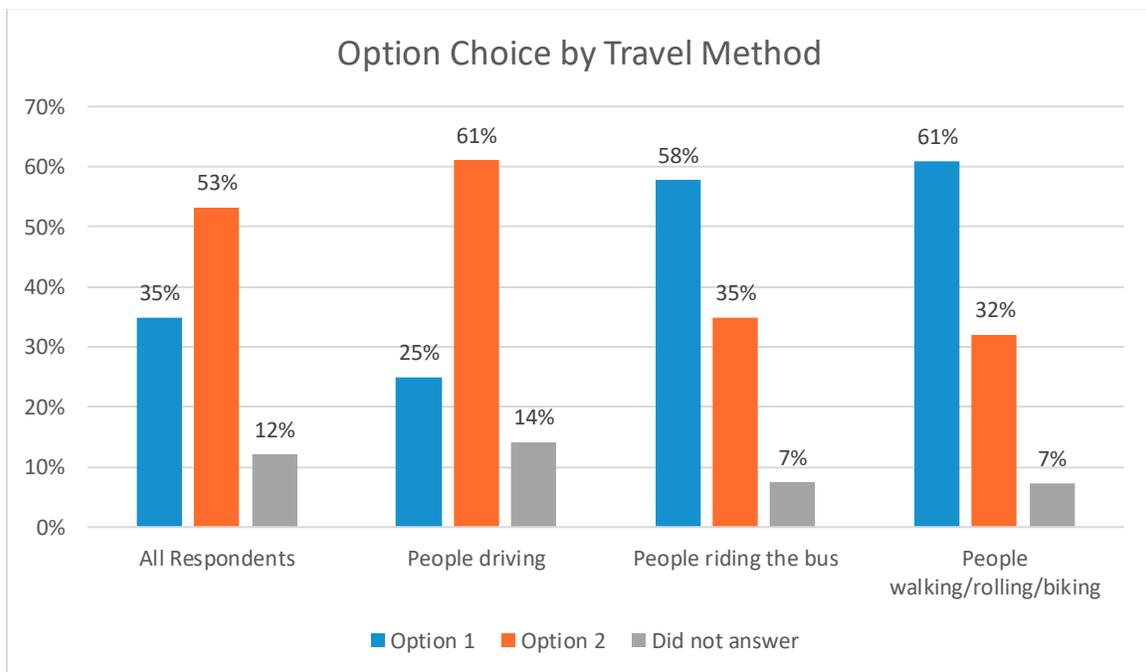
Barriers to Taking the Bus

- People who ride the bus occasionally, rarely, or never are more likely to be white, middle aged, and primarily travel through Rainier Ave S for personal errands and shopping.

- The biggest need for people to take more bus trips is “Improve safety, comfort, and/or accessibility of bus stops”.
- People who ride the bus frequently are more concerned about logistics like punctuality and reliability.
- People who ride the bus occasionally want more infrastructure improvements, like pedestrian crossings and bus-only lanes.
 - Occasional bus riders are also most likely to use an alternative mode of transportation like biking or walking.
- Bus-only lanes are unlikely to change the behavior of people who ride the bus rarely or never. People who ride the bus rarely or never make up the largest group of survey respondents.
- People who ride the bus rarely or never are more concerned about personal safety on the bus, which prevents them from taking more bus trips, regardless of how much improvements have been made in other areas.

Option Choice

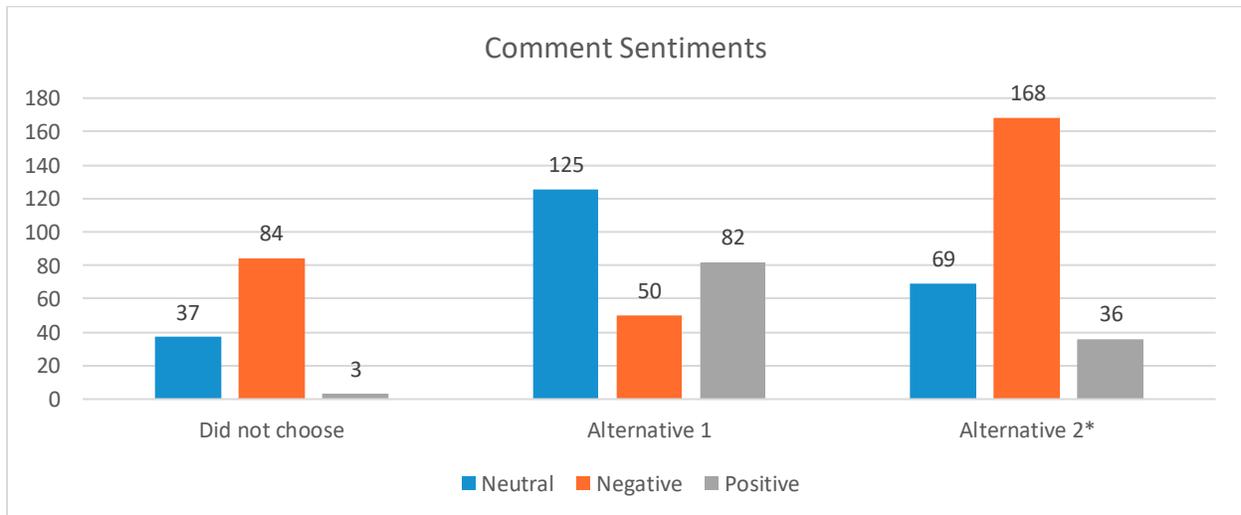
463 respondents picked Option 1 and 707 respondents chose Option 2, but the split between people who drive and people who don't drive is clear. The majority (61%) of people who drive (n=639) prefer Option 2. People who ride the bus, bike, walk/roll, or use a scooter prefer Option 1. Sample sizes for people who ride the bus, bike, walk/roll, or use a scooter are small (n=272), but the difference in preference is large enough to be significant.



Comments are analyzed into three sentiment categories:

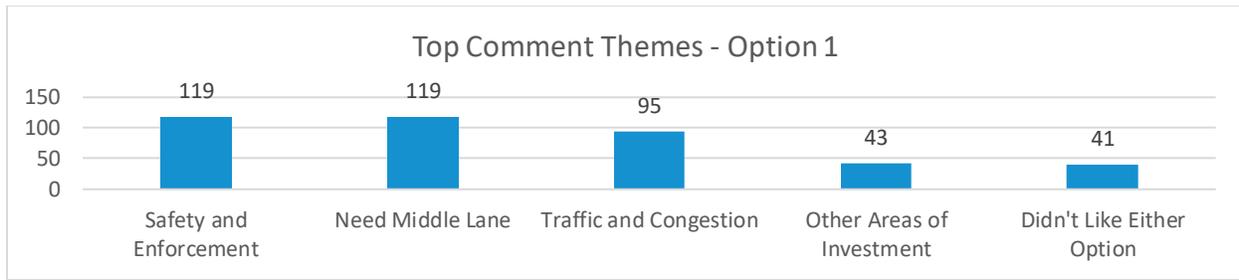
- **Positive** – These are comments where the tone is generally positive or supportive of the options or project goals. Comments like:
 - *“I fully support this initiative.”*
 - *“I think buses should get priority, no matter the final decision. Thanks for all your hard work in figuring this out!”*
- **Negative** – These are comments where respondents are angry or negative towards the options and changes. Comments like:
 - *“I do NOT support either option. Creating major traffic jams on Rainier Ave S. is an AWFUL idea!!!! What are you people thinking???? Get rid of the bus only lanes you installed on Rainier Ave South!!!!”*
 - *“These both suck. I hope you get fired.”*
- **Neutral** – These are comments and feedback where the respondents state what they are thinking more as a matter of fact, without additional emotions attached to them. These comments can be both in support of and against the options. Comments like:
 - *“More convenient to have a turning lane.”*
 - *“Bus only lanes will cause increased traffic on Rainier and other areas on Beacon Hill.”*

Based on this analysis and categorization, people who selected Option 1 are generally more content with their choice, while people who selected Option 2 are generally more negative.



*Not all comments were categorized.

Feedback On Option 1



463 respondents picked Option 1 and 255 shared their comments and feedback. The top themes of why they picked Option 1 are safety, need for a center turn lane, and better traffic. Below is a summary of what people talked about within each theme. Some ideas overlap with each other.

Safety and Enforcement (119 comments)

- Option 2 with 2 lanes will encourage faster driving on Rainier Ave.
- People would still turn left in Option 2, causing more collisions.
- Option 1 is safer for people walking/rolling and biking, they can use the middle lane as a safe harbor when crossing.
- There is no enforcement. Bus lanes and the turn lane are used by people driving aggressively as passing lanes and they are not being punished for this behavior. This makes the road dangerous for all.
- Increased traffic will push cars into the neighborhoods, making them unsafe.

Need for Middle Lane (119 comments)

- The center turn lane promotes safe turning and reduces the risk of rear end collisions.
- Maintaining the turn lane will make it easier to access local businesses along Rainier Ave.
- Traffic needs that turn lane more than an additional driving lane.
- This makes the future option of creating a bus only lane going southbound more natural.

Increased Traffic and Congestion (95 comments)

- All agree that both options will increase traffic, congestion, and push vehicles into neighborhood streets.
- Slower traffic also means safer streets for people walking, rolling, and biking.
- With Option 2, taking a left turn would be hard and will slow down traffic considerably.
- Preserving a turn lane and reducing northbound traffic to a single travel lane promotes safe driving.

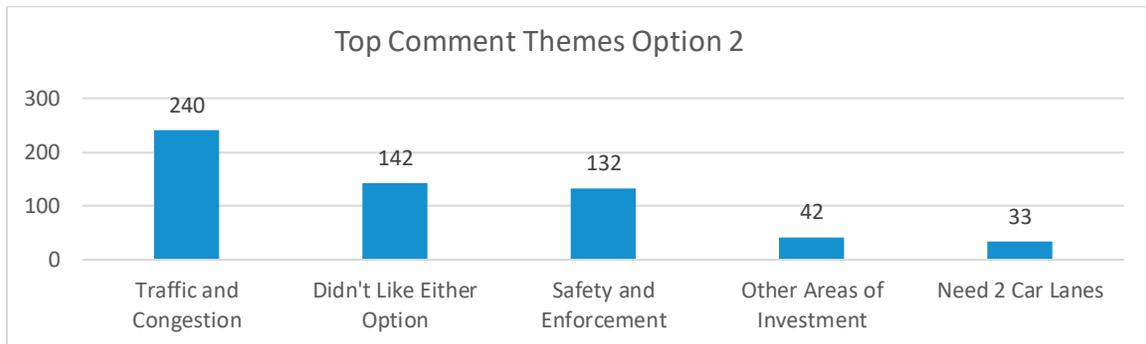
Other Investment Area (43 comments)

- Protect bike lanes.
- Pedestrian crossings.
- Better public transit infrastructure (bus safety, cleanliness, etc.) should be a priority.
- The bus lanes are not well-paved/maintained and narrow, which blocks traffic even further.
- More frequent bus service.
- Many sidewalks are broken/nonexistent.

Both Options Are Bad/No Bus-Only Lane (41 comments)

- Neither option is ideal. Option 1 is the lesser of two evils. Eliminating center turn lanes is dangerous, so would rather keep the turn lanes to prevent traffic collisions.
- Bus only lanes don't work and only slows traffic. There is no enforcement either.
- Neither option is sufficient for safe and efficient travel.
- Just having the bus only lane will not increase or encourage more bus ridership as other issues with the bus system (bus safety, cleanliness, etc.) are not addressed.

Feedback On Option 2



707 respondents picked Option 2 and 458 shared their comments and feedback. The top themes of why they picked Option 2 are better traffic, best of 2 bad options, and safety. Below is a summary of what people talked about within each theme. Some ideas overlap with each other.

Increased Traffic and Congestion (240 comments)

- Not having 2 lanes for normal traffic on a busy street like Rainier causes too much congestion.
- Option 2 can reduce the density of traffic on the roads. making the roads safer overall.
- Option 2 may limit traffic diverting to neighborhood streets because there is no left turn.
- With Option 1 there will be a tendency for some people driving to use the center turn lane as a high-speed passing lane, which is dangerous.
- If left hand turns could be made at signals, that could provide opportunities to turn left.
- Left turn lane is not used much.
- No left turn will impact businesses as people driving can't easily turn into them. It will impact freight and loading as well.

Both Options Are Bad/No Bus-Only Lane (142 comments)

- Having seen the congestion caused by Phase 1 of this project, Rainier Ave shouldn't have a northbound lane.
- Bus only lanes cause congestion which spills over to other residential roads, making them even less safe.
- Both options are eliminating a lane for cars on what is already a very busy and sometimes dangerous road. But Option 2 will move traffic faster.

Safety and Enforcement (132 comments)

- The buses are fine as is and this is not going to increase ridership very substantially. This is because the bus itself is unsafe to ride and people feel uncomfortable walking between stations.
- There is no enforcement. Bus lanes and the turn lane are used by people driving aggressively as passing lanes. People are not being punished for this behavior, making the road dangerous for all.
- Increased traffic will push cars into the neighborhoods, making them unsafe.
- With Option 1 there will be a tendency for some people driving to use the center turn lane as a high-speed passing lane. There may as well just be two lanes, with one for passing.

Other Investment Area (42 comments)

- Protect bike lanes.
- Pedestrian crossings.
- Better public transit infrastructure (bus safety, cleanliness, etc.) should be a priority.
- The bus lanes are not well-paved/maintained and narrow, which blocks traffic even further.
- More frequent bus service.
- Many sidewalks are broken/nonexistent.

Need 2 Driving Lanes (33 comments)

- With Option 1 there will be a tendency for some people driving to use the center turn lane as a high-speed passing lane. There may as well just be two lanes, with one for passing.
- Center turn lanes are not as useful as travel lanes.

People Who Ride the Bus Frequently and People Who Don't Ride the Bus

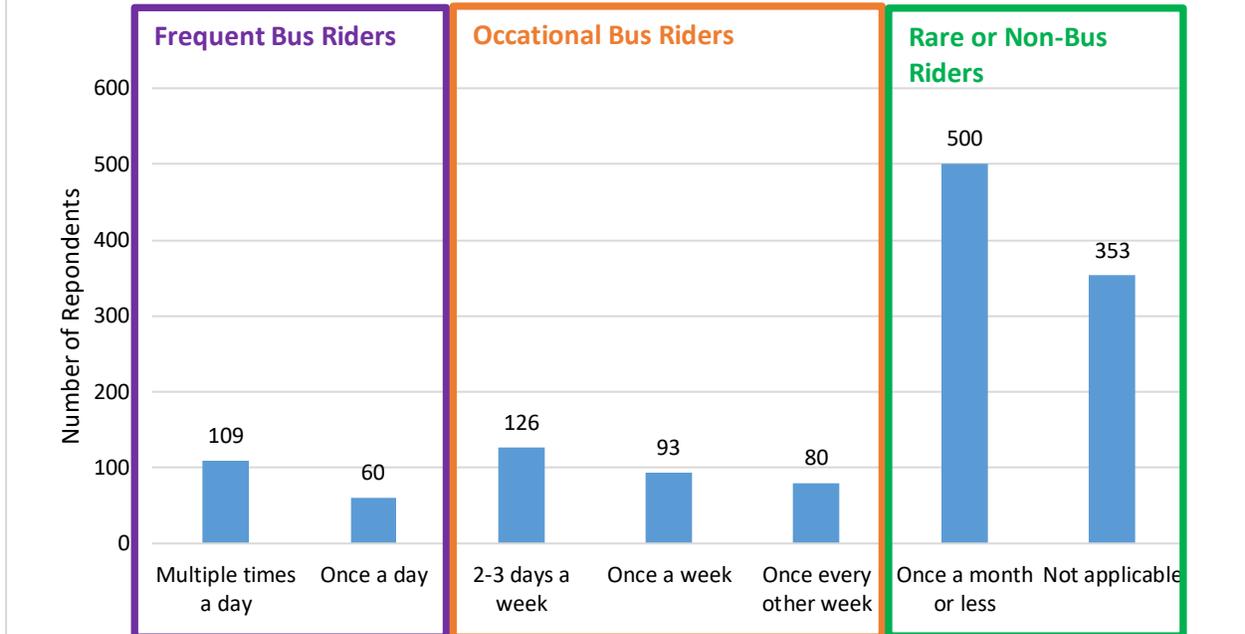
1321 respondents self-reported on how often they ride the bus. For simplification, the analysis in this report will adopt the following definitions:

- **Frequent Bus Riders (n=169)** – These are people who ride the bus:
 - Multiple times a day
 - Once a day
- **Occasional Bus Riders (n=299)**– These are people who ride the bus:
 - 2-3 days a week
 - Once a week
 - Once every other week
- **Rare or Non-Bus Riders (n=853)** – These are people who ride the bus:
 - Once a month or less
 - Not applicable

The majority of respondents (853, 65%) are rare or non-bus riders. 13% (169) of respondents are frequent bus riders and 23% (299) are occasional bus riders. (Exhibit 1).

The percentages add up to over 100% as they are each rounded to the nearest whole number.

Exhibit 1: Respondent Self-Reported Bus Riding Frequency



Travel Times

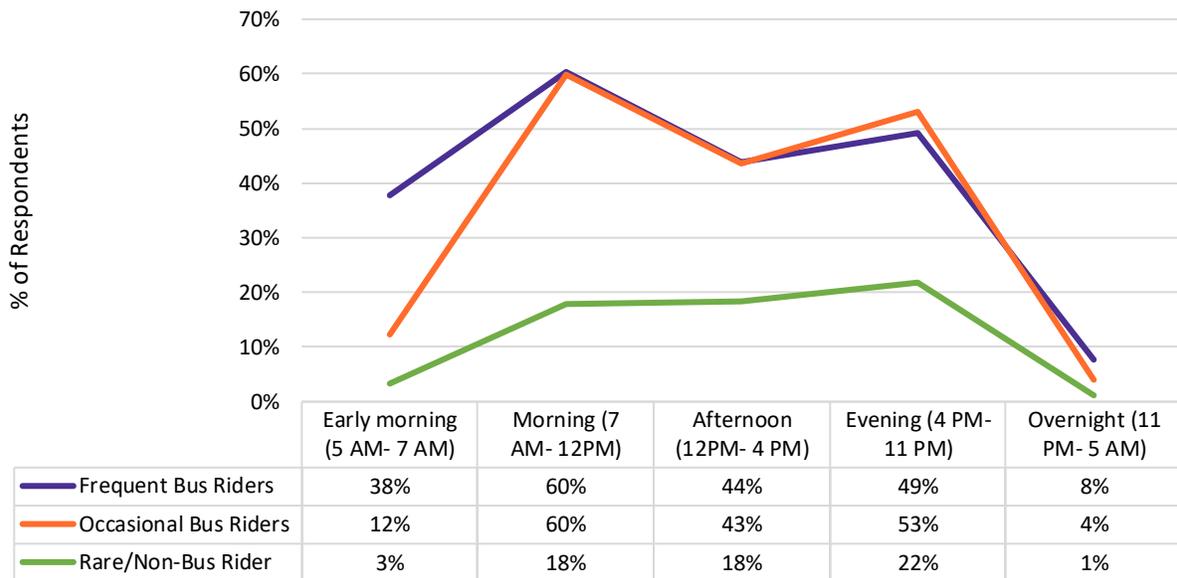
Travel times among frequent and occasional bus riders peak in the mornings and evenings. 60% of frequent riders (n=169) and occasional riders (n=299) take the bus in the morning, with frequent riders more likely to take earlier buses. When rare or non-bus riders (n=853) use the bus, they ride less but more evenly throughout the day (Exhibit 2).

Exhibit 2 displays that, for frequent and occasional bus riders, around 10% less ride the bus in the evenings compared to the morning. This is likely due to safety concerns of riding the bus at night, as some of the write-in comments have explained:

“My wife is a medical worker at Swedish Hospital... She takes [the bus] in the mornings but refuses to ride it after dark because of the lack of safety at the stops around Swedish Campus and on the bus itself... My 76-year-old father who lives in Rainer Valley is the same, so I have to drive him to all his appointments.”

More research is recommended to confirm this hypothesis.

Exhibit 2: Time of Bus Trip vs Bus Riding Frequency



Reason for Trips on Rainier Ave

People were asked to share their reasons for visiting and travelling on Rainier Ave S. For each rider group, their identified reasons are ranked in the table below, with **1 being the most frequently cited reasons and 10 being the least:**

	Frequent Bus Riders	Occasional Bus Riders	Rare/Non-Bus Rider
Travel Reason	Travel Reason Rank		
Traveling through Rainier Ave S	1	1	1
Visiting places on Rainier Ave S	2	2	3
Home	3	5	5
Work	4	7	7
Local businesses	5	3	2
Personal errands	6	4	4
Recreational activities	7	6	6
Medical appointments	8	8	8
Servicing businesses on Rainier Ave S	9	9	9
School	10	10	10

We can see from the table above that travelling through and visiting places on Rainier Ave S are the top 2 or 3 reasons for all rider groups. Frequent bus riders, however, are more likely to be living and working in the area (rank 3 - 4), while occasional and rare/non-bus riders are more likely to be visiting local businesses or running personal errands (rank 2/3 - 4).

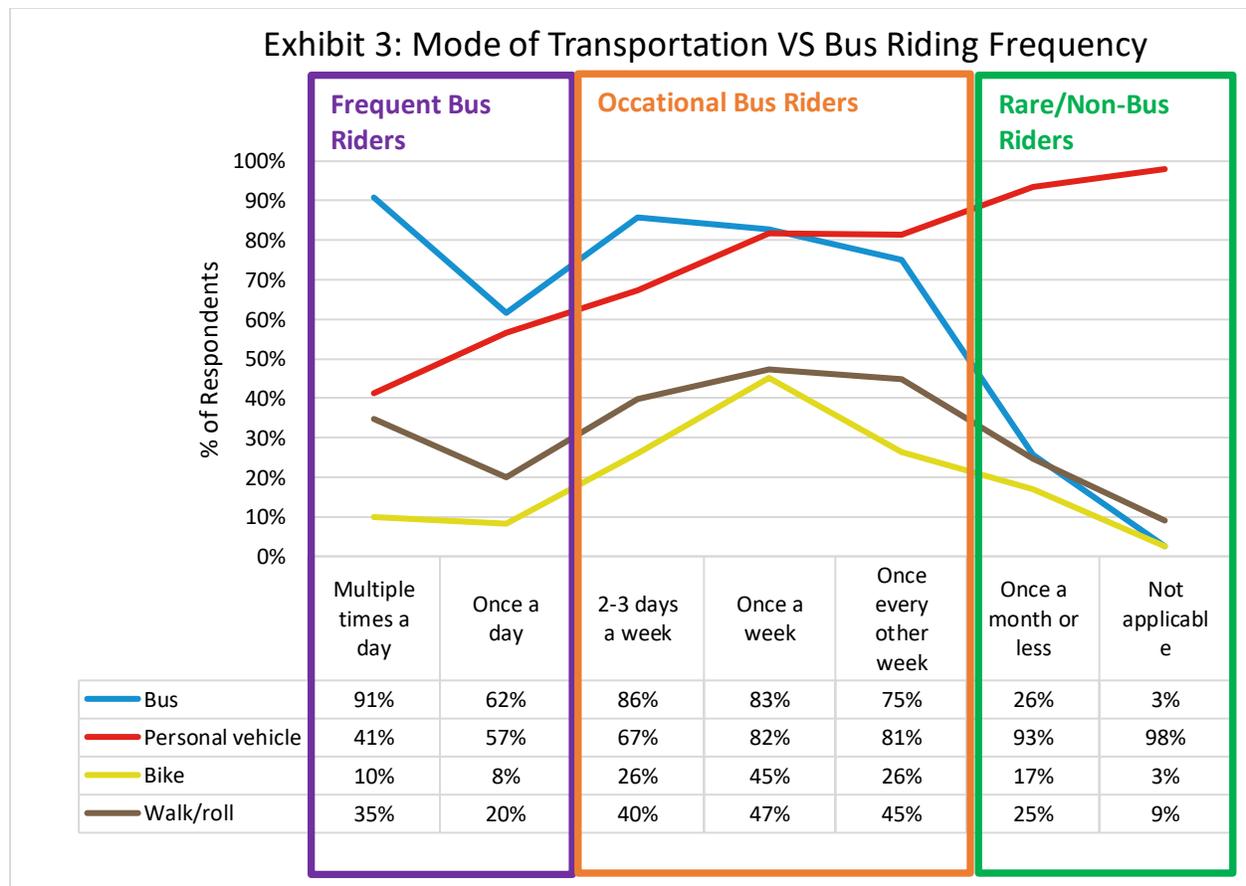
Mode of Transportation

Looking at the mode of transportation respondents usually use when traveling on Rainier Ave S, we can see bus ridership and personal vehicle usage is almost an inverse of each other. At one end of the respondents that selected “Not applicable” (n=353), 3% (9) said they ride the bus when traveling on Rainier Ave S, while 98% drove their personal vehicle. On the other end, respondents that ride the bus multiple times a day (n=109), 91% (99) travel Rainier Ave by bus and 41% (45) drove (Exhibit 3).

The total adds up to over 100% as respondent can pick more than one option. “Scooter” and “Delivery or service vehicle” were also options but not included in the analysis as the sample sizes were too small.

The key differences among each bus rider group are:

- Frequent bus riders, as the name suggests, usually ride the bus when traveling in and through Rainier Ave.
 - Riders that ride once a day (n=60) report less bus usage compared to occasional bus riders, but this could be due to the limited sample size for this group.
- Occasional bus riders report using the bus and personal vehicles often, but they are also most likely among all respondents to use other transportation methods like walking or biking.
- Rare/Non-bus riders primarily drive their personal vehicle and are very unlikely to take the bus.

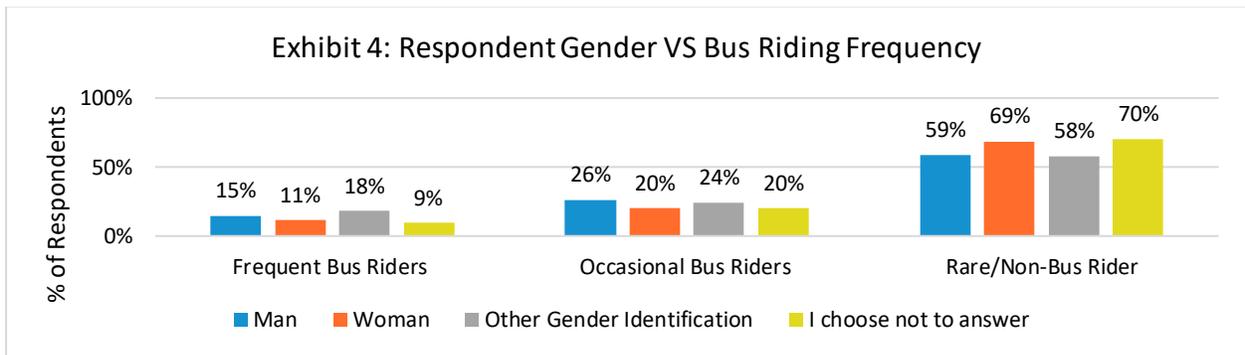


Demographics

Gender

There are no significant differences between genders and their bus riding behavior, but male respondents (n=551) are slightly more likely to ride buses than female respondents (n=560). 15% (81) of male respondents are frequent bus riders compared to 11% (64) of female respondents. 59% (326) of male respondents are rare/non-bus riders, versus 69% (385) of female respondents (Exhibit 4).

Respondents with other gender identifications' (n=50) answers are aggregated and shown in Exhibit 4, but the sample is too small to draw any conclusions.

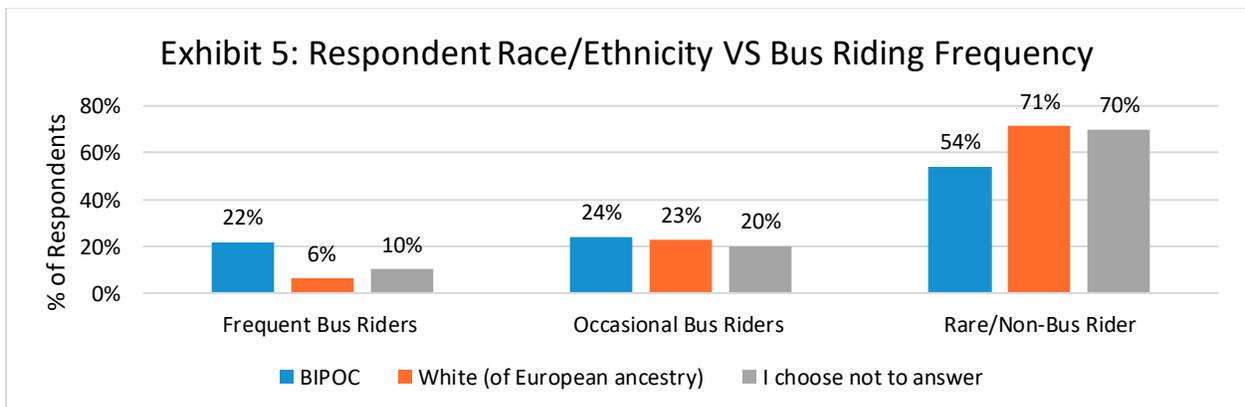


Race and Ethnicity

In this analysis all non-white identifying respondents (including those that selected "Other") are categorized into one BIPOC segment. However, it is important to recognize that BIPOC respondents represent a variety of views and opinions, so this analysis only serves as a guide.

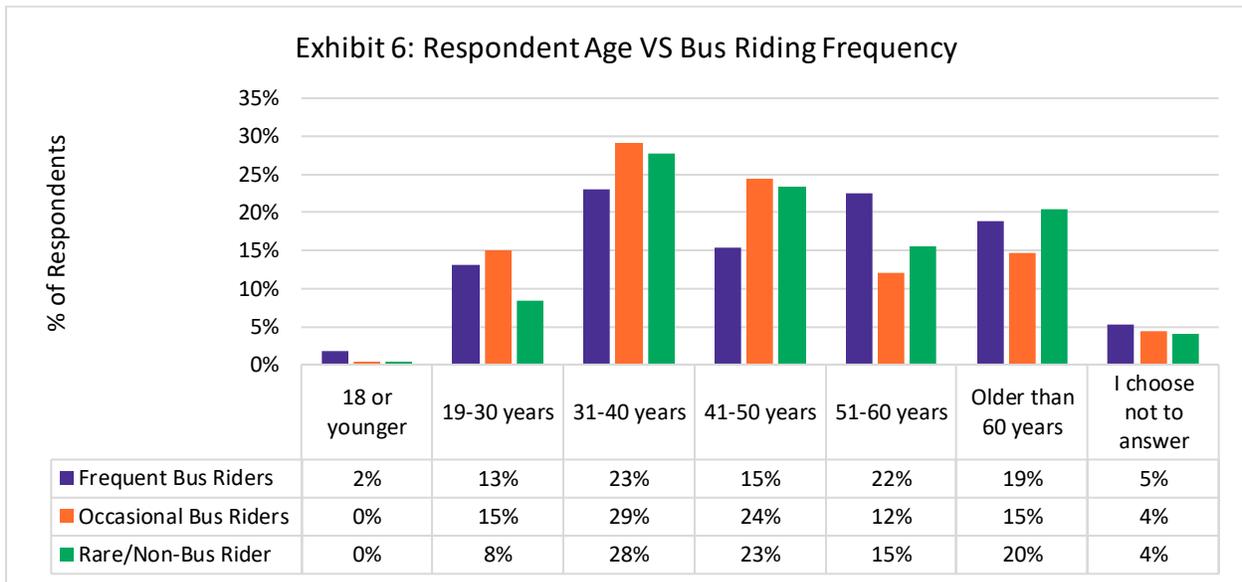
The survey shows BIPOC respondents (n=500) are almost 4 times more likely to be frequent bus riders compared to white identifying respondents (n=591). Similarly, white identifying respondents are 17% more likely to be rare/non-bus riders (Exhibit 5).

Among the 229 respondents that chose not to answer, their bus riding behavior is similar to that of white identifying respondents. The mass majority (70%) are rare/non-bus riders, around 20% are occasional bus riders, with very few (10%) frequent bus riders.



Age

Compared to occasional riders (n=299) and rare/non-bus riders (n=835), frequent bus riders (n=169) are more likely to be older, with 42% indicating they are older than 51. 53% of occasional riders and 51% of rare/non bus riders are between 31 and 50 years old (Exhibit 6).

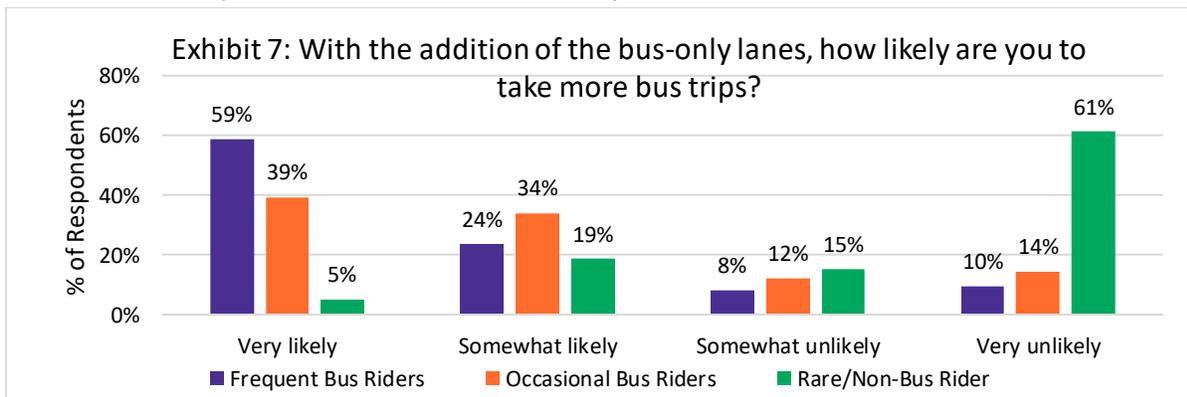


Barriers and Incentives to Taking the Bus

Having examined who the bus riders are and who is not currently using the bus, this section looks at what would make people take the bus more often, and what other barriers exist that prevent people from taking the bus.

Bus Lanes

Respondents were asked to reflect on whether either of the options will make them take more bus trips. Looking at Exhibit 7 below, 73% (209) of occasional bus rides said they are somewhat or very likely to take the bus more often and 82% (129) of frequent bus riders said the same. However, 76% of rare/non-bus riders are still reluctant to take more bus trips even with the addition of bus-only lanes.



Other Changes

People were provided with a list of other changes that would help them take more bus trips and asked to select their top 5. These options included:

- Make bus trips more reliable
- Make bus trips arrive on-time
- Improve safety, comfort, and/or accessibility of bus stops
- Increase transit service to additional areas
- Expand transit service hours
- Increase the number of buses
- Make pedestrian crossings to bus stops easier and safer
- Expand bus-only lanes
- Make it easier to find rider information
- Increase or expand reduced fare programs
- Improve safety for people on the bus
- Other (write-in)

In the table below, the improvements listed are ranked based on the number of picks by each rider group, with **1 being the most frequently cited reasons and 11 being the least:**

	Frequent Bus Riders	Occasional Bus Riders	Rare/Non-Bus Rider
Area of Improvement	Area of Improvement Rank		
Improve safety for people on the bus	6	6	1
Improve safety, comfort, and/or accessibility of bus stops	1	1	2
Make bus trips more reliable	2	2	3
Increase transit service to additional areas	4	7	4
Make bus trips arrive on-time	3	3	5
Make pedestrian crossings to bus stops easier and safer	5	4	6
Increase the number of buses	9	8	7
Expand bus-only lanes	7	5	8
Expand transit service hours	8	9	9
Increase or expand reduced fare programs	11	10	10
Make it easier to find rider information	10	11	11

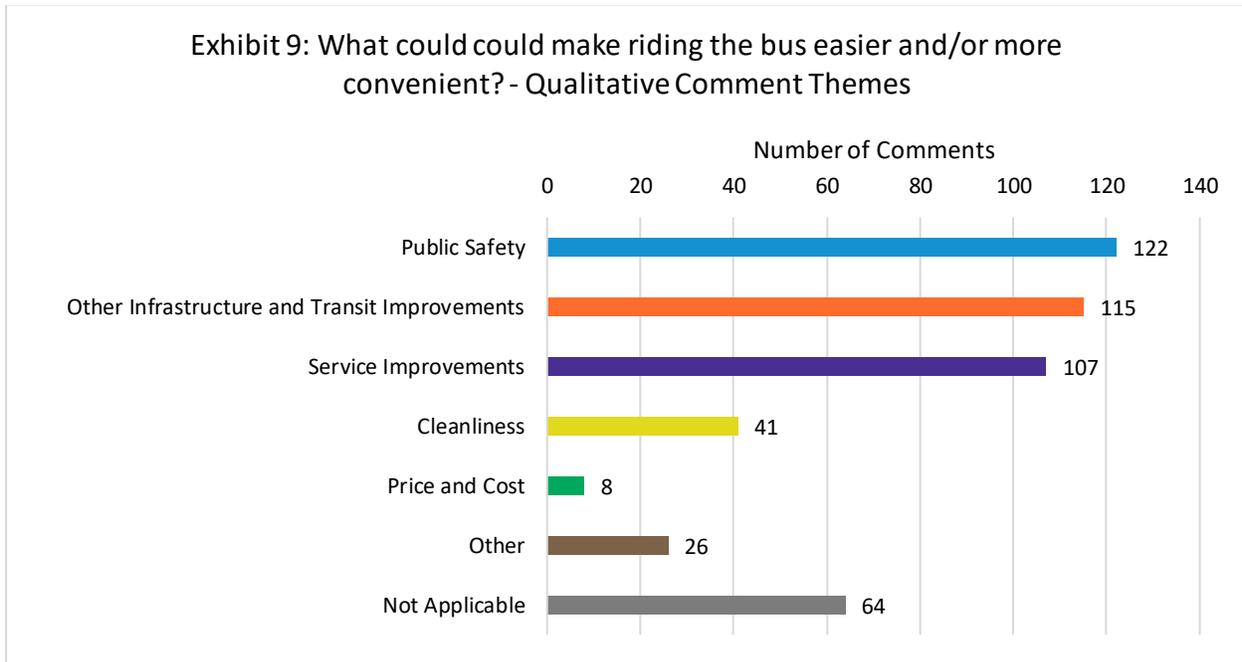
“Improve safety, comfort, and/or accessibility of bus stops” is an important criterion for all kinds of bus riders (ranks 1 - 2). Frequent and occasional bus riders also prioritize reliability and punctuality of buses more (rank 2 and 3). Rare/non-bus riders are interested in “Improve safety for people on the bus” the most, while it is only moderately prioritized by frequent and occasional bus riders (rank 1 vs rank 6, respectively).

This suggests the biggest barrier to most respondents is the safety, comfort, and/or accessibility of bus stops.

Among the different rider groups, frequent riders are more concerned about logistics like punctuality and reliability. Occasional bus riders want more infrastructure improvements, like pedestrian crossings and bus-only lanes. Rare/non-bus riders are more concerned about personal safety on the bus, which prevents them from taking more bus trips, regardless of how much improvements have been made in other areas.

Qualitative Comments

393 respondents also provided additional feedback via the “other” write-in responses. Their comments fall into the general themes categorized in Exhibit 9.



The comments and theme generally align with the areas of improvements provided:

Public Safety comments talked about:

- **Improving safety for people on the bus:**
 - “SAFETY!! It is not safe to take the bus, or wait for the bus, especially with my toddler.” - Rare/Non-Bus Rider
 - “Improve cleanliness of buses. Stop allowing people to smoke fentanyl onboard. Stop allowing people to smoke fentanyl and live in bus stops. Less junkie urine on seats. (Note: I have run into at least one of the last three issues the last three times I have ridden the #7. They are real, constant problems.)” - Occasional Bus Rider
 - “I do not feel safe taking the 7 bus at any time of day. I would love to have a security guard on every bus!! There is always a sketch person who threatens other riders...” - Frequent Bus Rider
- **Improving safety, comfort, and/or accessibility of bus stops**
 - “Bus stops along the route are not comfortable for waiting.” - Rare/Non-Bus Rider
 - “There are stops that are dangerous because of where they are located, also some do not have shelter or light.” - Frequent Bus Rider

Other Infrastructure and Transit Improvements comments talked about:

- **Make pedestrian crossings and other crossings to and from bus stops easier and safe**

- “Pedestrian walk signals must be fixed (Massachusetts & rainier, and the cross walk at I-90 entrance on south side of I90) and any and all traffic calming methods should be implemented to slow traffic and allow safer crossings for non-vehicular traffic (bikes, pedestrians etc.)” -*Frequent Bus Rider*
- “Improve sidewalks and crossing not just to bus stops but around the surrounding area. More Rainier crossings, with lights.” - *Frequent Bus Rider*
- “Add bicycle facilities to Rainier Ave S. This would make bike-to-bus connections much more available, and allow for safe bike trips generally. Also better east-west bus service.” - *Occasional Bus Rider*
- “Actually enforce bus only/bike only lane use. I will get killed riding my bike in that lane. KILLED. You have created a lane for don't follow the laws to go MUCH faster during peak travel times because they know there are ZERO consequences.” - *Rare/Non-Bus Rider*
- **Increase transit service to additional areas**
 - “Improve east-west connections so that more people can get to Rainier to use the bus.” - *Occasional Bus Rider*
 - “Build transit to where people need to go, not just downtown.” - *Rare/Non-Bus Rider*
- **Additionally, make sure bus systems work in conjunction with other transit**
 - “Make more transit options to connect to the light rail. We lost our via service. You are making rainier Ave bus service compete with light rail rather than complement it.” - *Rare/Non-Bus Rider*
 - “Would love the stops for #7 south and #554/#550 downtown to align at Charles Street. The block offset plus two crosswalk lights make it hard to catch connections.” - *Rare/Non-Bus Rider*

Service Improvements comments talked about:

- **Make bus trips more reliable**
 - “I used to use “One Bus Away”, but it became unreliable. I've taken the bus little since Covid, and perhaps issues have been fixed, but giving it priority to make the app as reliable as possible, and advertising its usefulness, would be helpful.”
- Rare/Non-Bus Rider
 - “Use signage at bus stops/stations to provide accurate bus arrival and departure times.” - Rare/Non-Bus Rider
- **Make bus trips arrive on-time**
 - “Route 7 is dependable and offers frequent trips, which helps me get to work on time. It is not so with other buses, which reduces ridership. I feel people don't use Route 50 because it only comes once every half hour and is frequently late...” - Frequent Bus Rider
 - “Improve frequency and reliability of bus service to get to main travel corridors like Rainier Ave. For example, the #50 bus route is only every 30 minutes and the route itself is so very long (New Holly to W. Seattle - really??) that actually arrival times are often way off schedule.” - Rare/Non-Bus Rider
- **Expand transit service hours**
 - “People need to get to work. I'd love to take the bus and light rail but the first bus at my stop (corner of Wilson Ave S and Seward Park Ave) is at 6:30 AM, I need to be at work at that time, so I drive alone and pay for parking. The new bus only lanes make my commute worse and still I can't take the bus.” - Rare/Non-Bus Rider
- **Increase the number of buses**
 - “Make the buses more frequent, make them smaller, more flexible. I take light rail all the time because it's quick, comes frequently and arrives on time, and it gets me close to many places I normally visit. Buses, like cars go slow and wait. It will take a lot of change in how I see buses operate on the streets before I can be a big fan of them. I used to be many years ago.” - Rare/Non-Bus Rider
- **Additionally, increase the speed of buses and trips**
 - “More express bus routes (like the 9). I'd personally like to see more direct transit from Rainier Ave. S to the north end (UW). It takes me 3 buses to get to work, it's exhausting and eats into time with family. Increased safety would make transit more appealing.” - Frequent Bus Rider
 - “More express buses. Too slow with so many buses stopping at every stop and every red light and every vehicle making a right hand turn and every pedestrian...” - Rare/Non-Bus Rider

Cleanliness comments talked about:

- **Improve safety, comfort, and/or accessibility of bus stops**
 - “Who puts fabric on buses? People crap and piss themselves and sit on these seats. Gross and unsanitary, we should call the health department!” - Rare/Non-Bus Rider

Price and Cost comments talked about:

- **Increase or expand reduced fare programs**
 - “Make public transit cheaper or ideally free for all.” - Rare/Non-Bus Rider
 - “Go fare free. Stop using fare enforcement. Provide better accessibility (seating, clean public toilets, etc.)” - Frequent Bus Rider

Other comments that didn’t fit into any categories or themes above, for example:

- “Why is SDOT (SDOT) using Seattle transportation \$ to pay for Metro improvements?” - Rare/Non-Bus Rider
- “Bus drivers stop passing me up just cause there’s homeless people at my stop.” - Frequent Bus Rider
- “I could not choose just 5. We need all of the above.” - Rare/Non-Bus Rider

Not Applicable comments either provide no information or are unclear as to what improvements would make them take more bus trips, for example:

- “Nothing can be changed for me to ride the bus.” - Rare/Non-Bus Rider
- “I ride it when I need to, it has nothing to do with you.” - Occasional Bus Rider
- “We cannot take the bus no matter how much you improve on it.” - Rare/Non-Bus Rider
- “We live in Seward Park. The city removed our bus service. Unfair.” - Rare/Non-Bus Rider